

## STUDIJŲ KOKYBĖS VERTINIMO CENTRAS CENTRE FOR QUALITY ASSESSMENT IN HIGHER EDUCATION

# **INFORMATICS FIELD OF STUDY**

# Lietuvos verslo kolegija

# **EXTERNAL EVALUATION REPORT**

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# I. INTRODUCTION

## **1.1. OUTLINE OF THE EVALUATION PROCESS**

The study field evaluations in Lithuanian higher education institutions (HEIs) are based on the following:

- Procedure for the External Evaluation and Accreditation of Studies, Evaluation Areas and Indicators, approved by the Minister of Education, Science, and Sport;
- Methodology of External Evaluation of Study Fields approved by the Director of the Centre for Quality Assessment in Higher Education (SKVC);
- Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG).

The evaluation is intended to support HEIs in continuous enhancement of their study process and to inform the public about the quality of programmes within the study field.

The object of the evaluation is all programmes within a specific field of study. A separate assessment is given for each study cycle.

The evaluation process consists of the following main steps: 1) self-evaluation and production of a selfevaluation report (SER) prepared by a HEI; 2) a site visit of the review panel to the HEI; 3) the external evaluation report (EER) prepared by the review panel 4) accreditation decision taken by SKVC and its publication; 4) follow-up activities.

The main outcome of the evaluation process is the EER prepared by the review panel. The HEI is forwarded the draft EER to report on any factual mistakes. The draft report is then subject to approval by the external Study Evaluation Committee operating under SKVC. Once approved the EER serves as the basis for an accreditation decision. If a HEI is not happy with the outcome of the evaluation, HEI can file an appeal.

On the basis of the approved EER, SKVC takes one of the following accreditation decisions:

- Accreditation granted for 7 years if all evaluation areas are evaluated as exceptional (5 points), very good (4 points), or good (3 points).
- Accreditation granted for 3 years if at least one evaluation area is evaluated as satisfactory (2 points).
- Not accredited if at least one evaluation area is evaluated as unsatisfactory (1 point).

### **1.2. REVIEW PANEL**

The review panel was appointed in accordance with the Reviewer Selection Procedure as approved by the Director of SKVC.

The composition of the review panel was as follows:

- 1. Panel chair: Prof. dr. Philippe Bonnet
- 2. Academic member: Prof. dr. Claus Pahl
- 3. Academic member: dr. Lukas Daniel Klausner
- 4. Social partner: Juozas Breivė
- 5. Student representative: Tautvydas Kvietkauskas

### **1.3. SITE VISIT**

The site visit was organised on 09 of May 2024 as a hybrid session.

Meetings with the following members of the staff and stakeholders took place during the site visit:

- Senior management and administrative staff of the faculty(ies)
- Team responsible for preparation of the SER
- Teaching staff
- Students
- Alumni and social stakeholders including employers.

There was a need for translation during the meeting with a local English teacher.

## **1.4. BACKGROUND OF THE REVIEW**

#### Overview of the HEI

LTVK is a business college, covering 6 areas of studies and offering 12 study programs. LTVK was founded in 2001.

#### Overview of the study field

*LTVK has two study programs in the field of informatics.* Applied Informatics and Programming has been offered since 2009, and Digital Design Technologies since 2017. Both programs are aimed at educating IT professionals that can join the local workforce.

#### Previous external evaluations

The Applied Informatics and Programming programme was evaluated in 2014 and accredited for 3 years, and again accredited for three years in 2017. SKVC allowed the program to be offered until the current evaluation of the informatics field.

The Digital Design Technologies was established in 2017 and has never been evaluated.

#### Documents and information used in the review

The following documents and/or information have been requested / provided by the HEI before or during the site visit:

- Self-evaluation report and its annexes
- Final theses
- Additional information on practices, coursework and feedback from employers

#### Additional sources of information used by the review panel:

The following additional sources of information have been used by the review panel:

- SKVC website

# **II. STUDY PROGRAMMES IN THE FIELD**

### First cycle/LTQF 6

Title of the study programme	Applied Informatics and Programming	Digital Design Technologies
State code	6531BX009	6531BX026
Type of study (college/university)	college	college
Mode of study (full time/part time) and nominal duration (in years)	full time 3 years / part time 4 years	full time 3 years / part time 4 years
Workload in ECTS	180	180
Award (degree and/or professional qualification)	Professional Bachelor's Degree of Computing	Professional Bachelor's Degree of Computing
Language of instruction	Lithuanian	Lithuanian
Admission requirements	Secondary education	Secondary education
First registration date	2009	2017

# **III. ASSESSMENT IN POINTS BY CYCLE AND EVALUATION AREAS**

The first cycle of the Informatics study field at LTVK is given a **positive** evaluation.

No.	Evaluation Area	Evaluation points <sup>1*</sup>
1.	Study aims, learning outcomes and curriculum	2
2.	Links between scientific (or artistic) research and higher education	2
3.	Student admission and support	4
4.	Teaching and learning, student assessment and graduate employment	3
5.	Teaching staff	3
6.	Learning facilities and resources	3
7.	Quality assurance and public information	3
	Total:	20

<sup>&</sup>lt;sup>1</sup>**1 (unsatisfactory)** - the area does not meet the minimum requirements, there are substantial shortcomings that hinder the implementation of the programmes in the field.

**<sup>2</sup>** (satisfactory) - the area meets the minimum requirements, but there are substantial shortcomings that need to be eliminated.

**<sup>3</sup>** (good) - the area is being developed systematically, without any substantial shortcomings.

<sup>4 (</sup>very good) - the area is evaluated very well in the national context and internationally, without any shortcomings.

<sup>5 (</sup>exceptional) - the area is evaluated exceptionally well in the national context and internationally.

## **III. STUDY FIELD ANALYSIS**

### AREA 1: STUDY AIMS, LEARNING OUTCOMES AND CURRICULUM

1.1. Programmes are aligned with the country's economic and societal needs and the strategy of the HEI

#### FACTUAL SITUATION

# 1.1.1. Programme aims and learning outcomes are aligned with the needs of the society and/or the labour market

There is a strong demand for Informatics specialists in the Klapeida region and in Lithuania as documented in SER (p. 9). The two programmes *Applied Informatics and Programming*, and *Digital Design Technologies* fit well in terms of aim. In particular, the programmes fit well with the strategic development plan of the Klaipėda city municipality (SER p. 11). The visit established that graduates were satisfied with their employment in the labour market.

#### 1.1.2. Programme aims and learning outcomes are aligned with the HEI's mission, goals, and strategy

The alignment between both study programmes and the college goals and strategy is described in a generic way in the SER (pp. 11–12). Section 1.1.2 of the SER does not mention the study programmes. The visit made it clear that the *Digital Design Technologies* is well aligned with the HEI's mission, goals and strategy and strongly anchored with the current head of department. This is less clear for the *Applied Informatics and Programming* programme that essentially relies on teachers who are only loosely affiliated with the HEI.

#### **ANALYSIS AND CONCLUSION (regarding 1.1.)**

There is a discrepancy between the two study programmes. The *Digital Design Technologies* programme is well integrated in the department with a strong commitment from the head of department, while the *Applied Informatics and Programming* programme essentially relies on part-time employees.

Programmes comply with legal requirements, while curriculum design, curriculum,
1.2. teaching/learning and assessment methods enable students to achieve study aims and learning outcomes

#### **FACTUAL SITUATION**

#### 1.2.1. Programmes comply with legal requirements

The SER establishes that the structures of the programmes comply with legal requirements (SER pp. 12–14). The learning outcomes for both programmes are mostly aligned with the requirements from the Lithuanian National Qualifications Framework. However, the learning outcomes for the *Applied Informatics and Programming* programme do not include the following learning goals of the descriptor of the group of study fields of computing:

- Learning outcome 3.1.2 "To model real-world problems using formal methods of informatics and estimating the complexity of the problem" is not part of the study programme
- Learning outcome 3.14: "To methodically prepare a specification, project or other documentation required for the development of a product or service in the field of informatics"

The visit also established that there are two 1st year students that follow studies in person (non-distance). There is a significant risk that the scope of learning with direct participation of teachers and students (non-distance contact hours) is less than 10%.

#### 1.2.2. Programme aims, learning outcomes, teaching/learning and assessment methods are aligned

The SER discusses learning outcomes for the study programmes (paragraphs 42 and 43), learning outcome and teaching method for individual courses (paragraph 47), assessment method (paragraph 48 and 49) without describing a process to guarantee alignment. The visit showed that checking and enforcing alignment between programme aim, learning outcomes, teaching and assessment methods is the responsibility of the head of department based on course descriptions filled by teachers. Overall, the learning outcomes in individual courses are aligned with the learning outcomes for the programme as a whole.

#### 1.2.3. Curriculum ensures consistent development of student competences

The curriculum in both programmes are based on a progression throughout the course of the studies, leading to the final thesis.

1.2.4. Opportunities for students to personalise curriculum according to their personal learning goals and intended learning outcomes are ensured

Students can take a specialisation in the *Applied Informatics and Programming* programme as well as curses in other study programmes (SER pp. 16–17).

#### 1.2.5. Final theses (applied projects) comply with the requirements for the field and cycle

The final thesis complies with the requirements of a Bachelor in the field of informatics. The process for the choice of thesis, supervision and evaluation are described in the SER (p. 17). Examples of final theses were provided.

#### ANALYSIS AND CONCLUSION (regarding 1.2.)

The structures of both programmes comply with the legal requirements. While the *Digital Design* reflects best professional practices, the SER and the visit did not establish that this is the case for the *Applied Informatics and Programming* programme. More significantly, the learning outcomes for the *Applied Informatics and Programming* do not fully reflect the learning goals of the descriptor of the group of study fields of computing.

### **AREA 1: CONCLUSIONS**

	Negative - 1	Satisfactory - 2	Good - 3	Very good - 4	Exceptional - 5
AREA 1	Does not meet the	Meets the	Meets the	Very well	Exceptionally well
	requirements	requirements, but	requirements, but	nationally and	nationally and

	there are substantial shortcomings to be eliminated	there are shortcomings to be eliminated	internationally without any shortcomings	internationally without any shortcomings
First cycle	2			

#### COMMENDATIONS

1. The learning outcomes in the individual courses are aligned with the learning outcomes for the programme.

#### RECOMMENDATIONS

#### To address shortcomings

- 1. The learning outcomes defined for the programme Applied Informatics and Programming should reflect all learning outcomes described in the Description of the group of fields of study in the computer sciences. In particular the following two learning outcomes should be added (1) "To model real-world problems using formal methods of informatics and estimating the complexity of the problem" and (2) "To methodically prepare a specification, project or other documentation required for the development of a product or service in the field of informatics". The study programme should be revised to accommodate these learning goals.
- 2. The programme *Applied Informatics and Programming* should be more strongly anchored in the Informatics department with dedicated staff.
- 3. The programme *Applied Informatics and Programming* should document how it conveys best professional practices to the students.
- 4. Both study programmes should carefully monitor and carefully document that the scope of learning with direct participation of teachers and students (non-distance contact hours) is no less than 10%.

## AREA 2: LINKS BETWEEN SCIENTIFIC (OR ARTISTIC) RESEARCH AND HIGHER EDUCATION

2.1. Higher education integrates the latest developments in scientific (or artistic) research and technology and enables students to develop skills for scientific (or artistic) research

#### FACTUAL SITUATION

#### 2.1.1. Research within the field of study is at a sufficient level

Applied research at the HEI meets the minimal requirements, thanks to contributions in Digital Design Technologies. Neither the SER nor the visit established that applied research conducted within the field of study of Informatics at a quality higher than the minimally acceptable. The SER (p. 21) mentions an article published by members of staff at EGU 2020. This is an example of applied research published at an internationally recognised conference. However, the authors list LTVK as their second or third affiliation in the EGU publication. It is not clearly established that the applied research was conducted at LTVK. Table 2.6 of the SER lists methodological publications. However, methodological publications do not correspond to applied research output in informatics. In addition, one of the publications relates to constitutional law, which is outside the field of study. Self-publication in the LTVK's own journal, reviewed by colleagues from LTVK, does not document research at a quality which is higher than the minimally acceptable.

The SER presents projects conducted at LTVK (pp. 22–23) but without establishing a clear link with Informatics as a field of study. The visit did not allow us to establish this link.

Annex 13 lists IT development tasks (e.g., website creation) as applied research projects. This is not applied research at a quality level which is higher than the minimally acceptable.

#### 2.1.2. Curriculum is linked to the latest developments in science, art, and technology

While the curriculum in *Digital Design Technologies* reflects best practices and latest developments in digital design, the *Applied Informatics and Programming* programme does not reflect latest developments in the areas of AI, programming, databases, cybersecurity, operating systems and networks.

#### 2.1.3. Opportunities for students to engage in research are consistent with the cycle

For both programmes, the final thesis is the opportunity for students to engage in applied research.

#### ANALYSIS AND CONCLUSION (regarding 2.1.)

The SER established that lecturers affiliated with LTVK as well as other institutions are engaged in applied research. The SER and the visit established that research in Informatics conducted at the HEI meets the minimal requirements. The *Applied Informatics and Programming* programme does not reflect the latest developments in computer science (AI, programming, databases, cybersecurity, operating systems and networks).

## **AREA 2: CONCLUSIONS**

AREA 1	<b>Negative - 1</b> Does not meet the requirements	Satisfactory - 2 Meets the requirements, but there are substantial shortcomings to be eliminated	Good - 3 Meets the requirements, but there are shortcomings to be eliminated	Very good - 4 Very well nationally and internationally without any shortcomings	Exceptional - 5 Exceptionally well nationally and internationally without any shortcomings
First cycle		2			

#### COMMENDATIONS

1. The *Digital Design* programme reflects best professional practices.

#### RECOMMENDATIONS

#### To address shortcomings

- 1. Lecturers should be encouraged to conduct applied research in Informatics of a higher standard as part of their activities at LTVK.
- 2. The *Applied Informatics and Programming* programme should be revised to reflect the latest developments in computer science (AI, programming, databases, cybersecurity, operating systems and networks).

### **AREA 3: STUDENT ADMISSION AND SUPPORT**

#### 3.1. Student selection and admission is in line with the learning outcomes

#### FACTUAL SITUATION

#### 3.1.1. Student selection and admission criteria and procedures are adequate and transparent

The admission to the Informatics study programmes is carried out in accordance with the general provisions of the Lithuanian Association of Higher Education Institutions for General Admission Organisation (LAMA BPO) and the admission rules of LTVK.

Additional points for applicants to study places not financed by the state are awarded according to the following criteria: for applicants who have completed professional training programs in the same field of education, 1 point; participation in volunteering programs lasting at least 6 weeks - 0.5 points; for those who have at least one year of work experience in the same direction, which is applied for, 1.5 points; evaluation of the applicant's motivation - 0.5 or 1 or 1.5 points; those with an ECDL certificate (elementary or basic course) - 0.5 points; completed higher education - 2 points; Certificate of completion of the Lithuanian Junior Achievement secondary education program Economics and Business - 0.5 points; upon submission of certificates proving participation in live and remote online events organised by the LTVK - 1 point; upon submission of certificates proving participation in the LTVK's non-formal education activities, initiatives, projects, trainings or seminars - 1 point.

In 2020 a total of 46 applications to study under Informatics study programs were submitted. Informatics study programs with priority I increased from 9 (2020) to 30 (2023), so the number of those who submitted applications with other priorities remains the same, from 37 (2020) to 124 (2023). During the analysed period, the popularity of the Applied Informatics and Programming study program increased significantly, with 13 (2020) to 25 (2023) admitted students per year. The Digital Design Technologies study program number of students accepted to study systematically grew from 2 (when the program started in 2017) to 24 (in 2022).

The competitive average 5.70 score of those admitted to study, and the average of the highest score is noticeably maintained during the analysed period, not lower than 8.00. It can also be noted that the average competitive score in the course decreased from 5.83 (2022) to 4.69 (2023).

# 3.1.2. Recognition of foreign qualifications, periods of study, and prior learning (established provisions and procedures)

For LTVK students who have returned from semester studies under the Erasmus+ program. For LTVK students who went to study under the Erasmus+ exchange program, the studied subjects (30 credits) and the grades received during the study semester at a foreign higher education institution are credited. Upon successful completion of the study program at the LTVK, a professional bachelor's diploma and a diploma supplement are issued in accordance with the example of the European Commission, the Council of Europe and UNECSO/CEPES.

For persons who have studied in the same or another higher education institution or in a foreign higher education institution according to non-harmonized study content, the study results are credited according to the procedure established by the LTVK. A person who wishes to have the study results credited must submit documents about the study results.

#### ANALYSIS AND CONCLUSION (regarding 3.1.)

In conclusion, the procedures outlined for crediting study results at the LTVK demonstrate a commitment to supporting academic mobility and recognizing diverse educational experiences. Students participating in the Erasmus+ program benefit from the seamless integration of credits earned abroad into their home institution's curriculum, facilitating a broader educational experience aligned with European standards.

Furthermore, the flexibility provided for students with non-harmonized study content ensures that all educational achievements, whether acquired domestically or internationally, are properly documented and acknowledged. This approach not only promotes educational diversity but also strengthens the LTVK's commitment to facilitating lifelong learning and international cooperation.

By issuing professional bachelor's diplomas and diploma supplements in accordance with European Commission, Council of Europe, and UNESCO/CEPES guidelines, the LTVK underscores its dedication to academic excellence and the global mobility of its students. These practices not only enhance the academic profile of graduates but also contribute to the development of a well-rounded and internationally competent workforce.

Overall, the LTVK's procedures for crediting study results reflect a proactive stance in aligning with global educational standards while fostering a supportive environment for students to achieve their academic and professional aspirations.

#### 3.2. There is an effective student support system enabling students to maximise their learning progress

#### **FACTUAL SITUATION**

#### 3.2.1. Opportunities for student academic mobility are ensured

The LTVK encourages joining the Erasmus student network (ESN KUK), which not only strengthens foreign language skills, but also intercultural competences. Students often decide to take advantage of an international opportunity to go abroad by volunteering - but no students knew about it and never heard about it.

Students are introduced to the Erasmus+ program, its possibilities, documentation and the procedure for recognizing subjects studied abroad from the first year during the Adaptation Week events, information seminars organised once a semester, and the first-year (Fux) camp. Also, the information is constantly updated on the website of the LTVK and the possibilities of the program are announced on the social networks of the LTVK. Students are informed that according to the Erasmus+ charter, they have the right to use the opportunities offered by the program for a period of no longer than 12 months during the study stage, and students also receive a scholarship that compensates for travel and living expenses. The LTVK twice a year announces and organises public tenders for Erasmus+ program studies and internships abroad, which are carried out according to the procedure approved by the LTVK, the selection of students is carried out by a committee formed by the director. All students participating in the selection are informed about the selection criteria and selection results.

During the analysed period, 43 students left for internships in foreign companies and higher education institutions, of which 14 students (which make up 33 percent of all leavers) were from the field of Informatics

studies. Analysing the 2021-2023 period, it can be observed that the students of the Digital Design Technology study program systematically went to the University of Liepaja for multimedia product development practice for all three years (Latvia).

# 3.2.2. Academic, financial, social, psychological, and personal support provided to students is relevant, adequate, and effective

The LTVK provides the opportunity to apply for psychological help free of charge. For this purpose, contracts have been concluded with psychologists and students studying in Klaipėda and Vilnius can use this help. The information is published on the website of the LTVK. Help is confidential and free of charge. In order to help solve psychological problems and motivate students to study successfully, seminars on the following topics were organised in the 2020-2022 academic year: Overcoming stress and managing negative emotions, Dependence on technology, Psychology of positive habits. Students have a restroom.

The Study Regulations of the LTVK provide that a student can improve the results of passed exams during the entire period of study, but not more than twice, after paying a set fee of 0.5 MGL.

If necessary, an individual study plan can also be created for the student.

Students can receive state support, pay in instalments for their studies. According to the Statute of the LTVK, students have the right to a reduced tuition fee if they are disabled, orphaned, or socially dependent. A second family member studying at the LTVK, a family member of a LTVK employee or teacher can use the discount for the tuition fee.

The LTVK offers the option of deferring payment until the student receives a government-backed loan. The LTVK also provides an opportunity for students to pay tuition fees in instalments. According to the Statute of the LTVK, students have the right to a reduced tuition fee if they are disabled, orphaned, or socially dependent. Study discount: a second family member studying at the LTVK can benefit from the contributions. The study compensates the price paid for very good students with the funds of the European Union's structural funds. Students who pay for their studies with their own funds can receive social scholarships. Students who pay for their studies with their own funds can receive social scholarships.

For students who have come to study from other cities, the LTVK gives them the opportunity to live in a dormitory during their studies. The LTVK does not have its own dormitory facilities, therefore, if there is a need for this service, opportunities are being sought to conclude contracts with other higher education institutions that have such opportunities. From 2018 The LTVK has concluded an agreement with the Lithuanian Maritime University and rents dormitories, giving LTVK students the opportunity to live in them. The wishes of all students to live in a dormitory are satisfactory.

The Rotary Club and stakeholders have established scholarships for good results in science, sports, artistic activities, and scientific activities.

LTVK students can participate in "Biurometa" as a simulation of business efficiency, management or organisational behaviour. This experience and understanding is important for future managers and business leaders to help identify and improve workplace effectiveness. Students can contribute to creating a more efficient and productive work environment, which is the main goal of today's business and IT convergence.

#### 3.2.3. Higher education information and student counselling are sufficient

A two-day freshman camp is held before the school year. During it, students are introduced to the LTVK, lectures are given, sports competitions and artistic performances take place. Every year, in the first week of September, the Adaptation Week events are organised, during which students get to know the LTVK environment. During the events of the adaptation week, newly admitted students to the Informatics study programs are introduced to the purpose of each study program, study results, study organisation and other relevant information. Students have systematically planned meetings - afternoons, during which they are provided with all the necessary information: in the afternoon of getting to know the management, they meet with the founders of the LTVK, the director, the head. financier, lawyer.

During the career and opportunities day, there is a meeting with the head of the International Relations and Projects Department and representatives of the LTVK's student representation. There is also a meeting with the head of the department, who introduces the study requirements, study plans and other important information in detail. The library staff introduces the library's physical and electronic resources, databases and the possibility to use scientific literature sources via the VPN channel.

During the first lecture of each study subject, the teacher of the subject introduces the students to the content of the subject program, goals, desired results, requirements, literature, tasks, deadlines and the evaluation system.

Every semester, the Department of Technology approves and publicly publishes the consultation time schedule with the specified time and contact details of the lecturers.

Students fill out an anonymous survey, where they can express their opinion, submit wishes and observations, and evaluate the quality of their studies. In 2023 60 students of Informatics study programs participated in the study quality survey conducted in January.

#### ANALYSIS AND CONCLUSION (regarding 3.2.)

The LTVK demonstrates a strong commitment to student support and engagement through comprehensive initiatives. Freshman camps and Adaptation Week events facilitate a smooth transition for new students, while systematic meetings and career-focused days provide essential information and networking opportunities. The availability of psychological help, individualised study plans, and flexible financial support underscores the LTVK's dedication to student well-being and success. Moreover, consistent communication and feedback mechanisms, such as anonymous surveys and publicly available consultation schedules, highlight an ongoing effort to enhance educational quality and student satisfaction.

The LTVK mentioned that students are encouraged to join ESN Klaipėda University, however, none of the LTVK students knew about such an opportunity. Students mainly travel to Latvia during Erasmus, because of close cooperation with Liepaja University. Several students went on a trip to Spain. One of the students said that it is very hard to find an internship in Klaipėda because all jobs are in Vilnius and Kaunas, however, other students said that LTVK helps to find internships.

## **AREA 3: CONCLUSIONS**

AREA 1	<b>Negative - 1</b> Does not meet the requirements	Satisfactory - 2 Meets the requirements, but there are substantial shortcomings to be eliminated	Good - 3 Meets the requirements, but there are shortcomings to be eliminated	Very good - 4 Very well nationally and internationally without any shortcomings	Exceptional - 5 Exceptionally well nationally and internationally without any shortcomings
First cycle				4	

#### COMMENDATIONS

1. Participation in the Simulation Company (IB) "Biurometa" project

#### RECOMMENDATIONS

For further improvement

- 1. Recommend to strengthen cooperation with industrial companies enabling the opportunity to have internships in Klaipeda region and improve availability of information about those internships thus enabling the development of a wider range of interdisciplinary competencies.
- 2. Recommend to improve cooperation of local students with foreign students encouraging their joint involvement in organising activities and events.

# AREA 4: TEACHING AND LEARNING, STUDENT ASSESSMENT, AND GRADUATE EMPLOYMENT

#### 4.1. Students are prepared for independent professional activity

#### FACTUAL SITUATION

# 4.1.1. Teaching and learning address the needs of students and enable them to achieve intended learning outcomes

There are 2 study programmes in the field of Informatics evaluated. Study forms and modes comply with the specified in SER. The academic staff of the field of study is adequate to ensure the achievement of the learning outcomes and are capable of delivering high-quality education and supporting students in their learning. Study material is available on a distance learning platform also, as students prefer to attend distance theoretical lectures.

It is stated that the curriculum is designed according to regional labour market needs as close cooperation is ongoing with local municipalities and business. However, the Klaipeda region is dominated by industry and port companies which are in demand for managing infrastructure, smart and robotic industry lines, etc. But no Internet of Things or robotics related subjects in the curriculum was observed by the experts panel. Computer architecture laboratories, which are based on Cisco appliances, are very small, consisting of few workplaces and not fully equipped racks. No computer techniques or other appliances were observed to have hands on for deep computer architecture understanding.

In the meetings with alumni the experts panel noticed that it would be good to have more applied parts and practical exercises.

According to SER 58% of the total study time is allocated to independent work and as it was observed by the experts panel onsite visit, most students prefer remote study choice for theoretical lectures.

# 4.1.2. Access to higher education for socially vulnerable groups and students with individual needs is ensured.

It was stated that there are no students with special needs at this moment in evaluated study programs, however, building premises are adapted to the students with special needs including the mobile workplace and equipment.

Students with special needs can apply for additional financial support.

Being open for students with special needs creates a success story for business organisations in which such students could work.

#### ANALYSIS AND CONCLUSION (regarding 4.1.)

Despite the LTVK website adaptation for students with special needs there is no information on study process organisation for students with individual needs on the LTVK website.

It should be noted that the students' choice of distance learning as a frequent option could create a gap in students' technical hands-on skills which only could be gathered participating in workshops and laboratory works on site.

It was not clear in meetings with students and teachers how the keyboard throwing event mentioned several times having practical connection to IT project management study subject. However, students experience it primarily as a social, team building and networking event then practical skills development.

# 4.2. There is an effective and transparent system for student assessment, progress monitoring, and assuring academic integrity

#### **FACTUAL SITUATION**

4.2.1. Monitoring of learning progress and feedback to students to promote self-assessment and learning progress planning is systematic

A variety of assessment methods are used throughout the study courses. Students are encouraged to engage in self-assessment of their learning progress and outcomes. LTVK carries out internal assessments of the content and quality of teaching.

#### 4.2.2. Graduate employability and career are monitored

The employment rate of graduates is high. LTVK administration keeps in close contact with graduates about job prospects and other topics. Annual survey of graduates on employment and career is carried out.

Continuous feedback and input on study programs are provided directly from alumni to teachers. On meetings with the expert panel participants from alumni noticed that informal interaction with some of them is very close, almost quarterly, as knowledge that they have is very valuable to the LTVK.

It is worth mentioning that only 7.7% of employers surveyed in 2023, as it is stating per SER, came from manufacturing. Majority were from budgetary institutions and trade enterprises.

#### 4.2.3. Policies to ensure academic integrity, tolerance, and non-discrimination are implemented

There is an Academic code of ethics, and policy on equal opportunities approved and published on the LTVK website.

#### 4.2.4. Procedures for submitting and processing appeals and complaints are effective

The Regulations on Appeals were adapted and procedures implemented. There were no disputes, appeals and complaints submitted in the field of Informatics during the 2013-2023 period as stated per SER.

#### ANALYSIS AND CONCLUSION (regarding 4.2.)

Labour market assessments can be inaccurate depending on the region, which is dominated by industry and the port companies when survey's participants are not evenly distributed across the business and public sectors.

## **AREA 4: CONCLUSIONS**

AREA 1	<b>Negative - 1</b> Does not meet the requirements	Satisfactory - 2 Meets the requirements, but there are substantial shortcomings to be eliminated	Good - 3 Meets the requirements, but there are shortcomings to be eliminated	Very good - 4 Very well nationally and internationally without any shortcomings	Exceptional - 5 Exceptionally well nationally and internationally without any shortcomings
First cycle			3		

#### COMMENDATIONS

1. Digital design technologies laboratory equipped with front end infrastructure (e.g., tablets, 3D printer and media creation hardware and software) which allows students fully develop their technical hands-on skills.

#### RECOMMENDATIONS

#### To address shortcomings

- 1. Information on study process organisation should be made, grants and other facilities for students with special needs not far as 3 clicks in the LTVK website.
- Supplementation needed for computer networks laboratory with equipment (example, by old used computers, their parts, and network appliances for familiarisation with the features) to support proper skills that should be developed during computer architecture and computer networks management related subjects for students to have hands-on practice and technical skills development.
- 3. More employers should be included from industry and port companies in surveys and cooperation regarding evaluation of graduates' competences, the study program curriculum and market needs assessment to have better reflect on the regional labour market.

#### For further improvement

1. LTVK should review opportunities to strengthen orientation to industry and demand, provided by social partners, by implementing or integrating Internet of Things and robotics topics with hands-on practice (example, programming Raspberry Pi equipment) into Computers architecture and operational systems or Computer Network technologies subjects.

### **AREA 5: TEACHING STAFF**

#### 5.1. Teaching staff is adequate to achieve learning outcomes

#### **FACTUAL SITUATION**

5.1.1. The number, qualification, and competence (scientific, didactic, professional) of teaching staff is sufficient to achieve learning outcomes

The staff workload consists of teaching hours, preparation for teaching and in some cases administrative duties as the key activities.

Staff recruitment is in line with legal requirements considering the past professional experience in order to ensure the competent delivery of course subjects and allowing the achievement of the defined learning objectives.

Two study programmes are offered in Lithuanian. The subject-specific expertise to support the programme is present among the overall teaching staff.

From 24 teachers connected to the two programmes, 15 (62.5%) have a teaching load of less than 0.5 FTE (full-time equivalents), 3 have a load up to 1 FTE and 6 a full load.

Out of the staff members with more than 0.5 FTE, only 3 teach directly INF-related subjects (2 in research methods and data analysis and 1 in digital printing).

Of the 24 teachers, 19 have at least a B2 qualification in English.

66.6% of teachers hold a doctoral degree. Publications are listed for 9 of the 24 teachers. Here, 3 have published 1 paper each, 3 have published 2 papers each and 3 have published more than 2 papers. As also discussed during the visit, the majority of the publications are not sufficiently linked to the INF area.

Pedagogical experience among the teachers ranges from 3 to 19 years. The depth of teaching experience has been confirmed during the visit in the LTVK.

#### **ANALYSIS AND CONCLUSION (regarding 5.1.)**

The number of staff members is sufficient to teach the subjects in the programme. The teachers satisfy the formal requirements. Their competence is sufficient. Scientific competences could be improved for some staff members in order to increase the scientific aspects of the study subjects.

There are not many full-time teachers, with only about half being employed with more than 0.5 FTE. The teaching staff consists mainly of part-time teachers. Many staff members teach at the LTVK for many years, resulting in a low teaching staff turnover.

The teaching staff is balanced in terms of qualifications and expertise. The different subject areas in the informatics domain are represented. Professional experience exists as required. Sufficient didactic expertise exists. Both practical and didactic experience varies in terms of number of years. However, this reflects a healthy balance between younger and more senior staff members. The number of teachers with good English language capabilities is very good and would allow an internationalisation of the study offers.

Some teaching staff are also involved in administrative duties. This appears to be done in consensus with the respective staff members and no concerns regarding unjust allocation or lack of sufficient compensation was made.

The student/teacher ratio is very good (below 10, though slightly increasing over the evaluation period), which results in a great satisfaction of the teachers with this as it allows personal and targeted interaction with students.

The degree of involvement in research varies. The teaching staff's scientific activity and production should be improved to include all staff members at a sufficient level. In addition, the focus on publication as the only measure of scientific output is neither sufficient to evaluate research nor does it encourage various forms of activities including contract research or stakeholder engagement in this respect.

A comprehensive research strategy is not adequately formulated, which leaves the scientific expectation for staff members uncertain. A more comprehensive strategy that values activities beyond publications would allow staff members to see value in research engagement beyond publications. This would benefit the scientific expertise of staff and would benefit the teaching in scientific terms. Here, an improved research framework could encourage research participation and thus an improved scientific impact on teaching. A critical aspect is the increase of INF-related research activity, which is currently weak, in particular among those with a higher to full-time load at the college.

In conclusion, the competences are generally sufficient to achieve the learning outcomes. An improvement of scientific concerns and an increase of more full-time employment in the INF subjects is needed though.

# 5.2. Teaching staff is ensured opportunities to develop competences, and they are periodically evaluated

#### FACTUAL SITUATION

#### 5.2.1. Opportunities for academic mobility of teaching staff are ensured

The LTVK provides sufficient information on mobility possibilities. Applications for mobility are examined and approved by management under certain criteria as long as teaching continuity is maintained. A defined procedure for this exists that describes the procedure and criteria for mobility support. The teaching staff have confirmed their satisfaction with the level of support and the procedures during the visit.

The ERASMUS programme has been used by 9 of the staff members. Opportunities for mobility are generally provided as long as circumstances allow this. The teachers confirmed their awareness of opportunities in this regard during the visit.

The ratio between incoming and outgoing teachers through mobility programmes is balanced.

#### 5.2.2. Opportunities for the development of the teaching staff are ensured

The LTVK provides personal development activities, allowing the planning and implementation of each teacher's professional development, including participation in mobility programs, professional development courses/seminars and conferences.

The LTVK provides measures to allow the development of their teaching staff. This covers pedagogical, subject-specific, scientific and managerial activities. The LTVK has implemented a targeted training framework for all competences, which combines courses on pedagogical as well as managerial concerns.

On an annual basis, goals and activities are defined and reported, and discussed with the head of department.

Development opportunities in terms of course and other formats can be requested and are generally approved.

The LTVK allows students to participate in the teachers' evaluation. The teachers confirm formal and informal feedback procedures.

Strategically relevant support in the areas problem-based learning or management competencies are offered to teachers.

#### ANALYSIS AND CONCLUSION (regarding 5.2.)

Staff mobility is at a relatively low level. The support is good for interested teachers and only limited to ensure ongoing teaching activities. However, the uptake is more limited. Out of those with more than 0.5 FTE load, only four have participated.

Mobility programmes have in general been used to enrich teaching as well as establish and enhance research collaborations. The numbers of incoming and outgoing teaching staff are sufficiently balanced.

The LTVK has defined teacher assessment methods based on a range of criteria. However, it is unclear whether this method in practice achieves its objectives. Only some teachers are scientifically active, and the degree of activity across various forms of research engagement should be improved. The relevance of the produced output to the INF area is weak.

Pedagogical and professional competencies are sufficient to ensure support for ongoing teaching commitments.

The staff development measures are very well received by the staff members. Staff members feel presented well in decision procedures around these concerns. A well-defined plan for enhancing teacher competences across pedagogy, research, management and subject aspects exists.

In conclusion, mobility is currently at a low level, though the COVID-19 pandemic might have impacted on this. INF-related scientific competencies need to be significantly improved among the teachers with a higher than 0.5 FTE workload.

### **AREA 5: CONCLUSIONS**

AREA 1 Negative - 1 Satisfactory - 2	Good - 3	Very good - 4	Exceptional - 5
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	Does not meet the	Meets the	Meets the	Very well	Exceptionally well
	requirements	requirements, but	requirements, but	nationally and	nationally and
		there are	there are	internationally	internationally
		substantial	shortcomings to	without any	without any
		shortcomings to	be eliminated	shortcomings	shortcomings
		be eliminated			
First cycle			3		

#### COMMENDATIONS

- 1. Highly motivated and committed teachers
- 2. The staff-to-student ratio is beneficial for the study quality and allows teachers to support students individually.

#### RECOMMENDATIONS

#### To address shortcomings

- 1. The involvement of all teachers is research and in particular INF-related research needs to be improved in order to better infuse research into teaching and strengthen scientific understanding and skills.
- 2. The low number of full-time teachers for whom the LTVK is the main employer should be increased, in particular in the Informatics domain.

#### For further improvement

- 1. It is suggested to implement a research strategy that values income and stakeholder needs in order to increase scientific activities of staff.
- 2. It is suggested to increase the English language capabilities of all teachers to allow an internationalisation of study programmes.

### **AREA 6: LEARNING FACILITIES AND RESOURCES**

# 6.1. Facilities, informational and financial resources are sufficient and enable achieving learning outcomes

#### FACTUAL SITUATION

6.1.1. Facilities, informational and financial resources are adequate and sufficient for an effective learning process to some extent

The LTVK is based in a totally renovated building in an old part of Klaipeda city centre. The building has classrooms and auditoriums fully equipped and providing various capacities.

There is one laboratory for visual technologies and media, equipped with media creation software, AutoCAD, 3D printer, and one Cisco laboratory, which is oriented for network management study subjects. Media creation software and AutoCAD are also available as cloud service licences for students to have on personal computers during study time.

The Google for Education platform is implemented and the LTVK also provides opportunities to use Microsoft Office 365 services on their personal equipment during the study.

The LTVK provides a virtual learning environment for all courses taught on the basis of Moodle.

Students with disabilities have access to all LTVK premise floors by elevators. There is one specific mobile workplace for audio and visual disabled people equipped with a customised desk, a specific colourful keyboard and a braille printer.

The library is small and equipped with 16 workstations and internet access. There is also a reading room that could be used for student group works. Also available is a prepaid printer and photocopier.

The LTVK takes initiatives in order to ensure the placement of the students in internships.

Most full time teachers do have their offices, and others, who visit only for lectures can use a common workstation or rooms for all teachers.

There is student space for individual work, relaxation and simple food consumption in the basement. In the same area there is a play area for children of college employees and students if needed.

There is no separate canteen on premise, but the LTVK is situated in the centre of the city with many possibilities to eat and shop.

The LTVK does not have its own dormitory premises, but there is cooperation with other higher education institutions that have such availability for this service. As it was observed, around 10% of students from the field of informatics studies on average annually are accommodated in this way.

Various communication channels are used by the college to engage with students, including events, meetings, websites and social networks.

#### 6.1.2. There is continuous planning for and upgrading of resources.

An annual planning and maintenance plan is implemented. Software is adjusted by demand. Hardware is replaced regularly on a 20% basis annually, in line with general practices in this respect. In particular, the multimedia and design laboratories have received valuable investment over the last years.

#### ANALYSIS AND CONCLUSION (regarding 6.1.)

Classrooms are fully equipped, sunny and common areas are pleasant.

It is observed that LTVK premises in Klaipeda are located in the most expensive area for paid parking. However, there are public transport stops nearby.

Despite LTVK's sustainability strategy, it is observable that there are still print out examples: LTVK issued journals (the print out is in the annual finance plan observed), protocols and management meeting minutes, etc.

It was observed that the equipment in the laboratories does not fully meet the requirements of all subjects covered in the curriculum. For example, there are internet of things and computer architecture subjects, but no sufficient equipment to allow for sufficient hands-on activities for students, like devices for programming microcontrollers, general computer equipment to analyse structure of hardware or other equipment to try out hardware problem-solving in practice, are present. It is acknowledged that the support for design and multimedia subjects is due to a recent investment significantly better.

The LTVK should consider changing student behaviour towards more student laptop ownership and more access to digital resources than printed material (for the library) and also more remote access from outside the college. This again would reduce costs by providing for instance laptops directly those that don't own one, allow easier updating of library resources and enable the flexible usage of space (e.g. in classrooms or the library).

As some teachers do not have their own offices, which makes research from LTVK premises more difficult, as writing cannot be based on teamwork. It also could make cooperation with the students more difficult.

AREA 1	<b>Negative - 1</b> Does not meet the requirements	Satisfactory - 2 Meets the requirements, but there are substantial shortcomings to be eliminated	Good - 3 Meets the requirements, but there are shortcomings to be eliminated	Very good - 4 Very well nationally and internationally without any shortcomings	Exceptional - 5 Exceptionally well nationally and internationally without any shortcomings
First cycle			3		

## **AREA 6: CONCLUSIONS**

#### COMMENDATIONS

- 1. Completely renovated, functional and pleasant spaces exist that benefit teaching conditions well.
- 2. A simulation company established gives a good opportunity for students to carry out their internship and participate in real business company processes.

#### RECOMMENDATIONS

#### To address shortcomings

1. An upgrade of laboratory equipment in specific subjects defined in the study program should be considered to allow students to get acquainted with skills related to Internet of Things, computer architecture and operating systems.

#### For further improvement

1. An implementation of an effective sustainability strategy should be considered, e.g., by extending the use of more electronic resources instead of printed paper during the study process (e.g., final thesis papers, research articles, management meeting minutes, local issued science journal, etc.).

## **AREA 7: QUALITY ASSURANCE AND PUBLIC INFORMATION**

7.1. The development of the field of study is based on an internal quality assurance system involving all stakeholders and continuous monitoring, transparency and public information

#### FACTUAL SITUATION

#### 7.1.1. Internal quality assurance system for the programmes is effective

The SER describes the various organisational entities involved in internal quality assurance for the field of informatics study programmes, which comprises the Strategic Development and Communication Division, the Scientific and Applied Research Division, the Study Department, the Centre for Distance Learning, Biurometa and the Business Information Centre.

A process is defined that describes the actions and coordination of the involved entities in the overall quality management of the study programmes.

Internal quality assurance at LTVK follows ISO 9001 and is certified as such.

Furthermore, the SER describes in some detail the procedures involved in internal quality assurance at LTVK in terms of activities and constitution of the groups involved.

#### 7.1.2. Involvement of stakeholders (students and others) in internal quality assurance is effective

The opinions of students, graduates, employers and lecturers is regularly surveyed and such processes are adequately described in the SER.

Information about recent employers' surveys regarding graduates' qualifications were mostly evaluated as satisfactory. Only some mild criticism of applying their theoretical knowledge in practice and with some transferable skills (such as self-efficacy/ability to conduct work independently) was indicated. Basic information about *Applied Informatics and Programming* graduates' opinions on their study programme quality was provided.

The SER details how the different stakeholders are given feedback on their contributions.

The *Applied Informatics and Programming* study programme has been awarded a "Investors' Spotlight" quality certificate, which entailed a detailed external review and drafting of an improvement plan.

The SER lays out in detail how this improvement plan was executed and what the resulting changes were, indicating that external feedback in this process was taken into account.

Finally, the changes resulting from the prior SKVC audit are also described.

At the site visit meetings, social partners highly praised LTVK's stakeholder involvement, with one even stating that they knew the social partners of LTVK better than those at other colleges because of the very close contact they have through stakeholder involvement processes.

Graduates from the *Digital Design Technologies* study programme were also satisfied with their experiences, but stated that a stronger focus on practice and applied knowledge would be beneficial.

However, graduates also explicitly mentioned that LTVK administration kept in close contact with them after graduating and took an active interest in their job prospects and career start, and that they also had in-depth exchanges and feedback sessions with some of their lecturers after graduating.

# 7.1.3. Information on the programmes, their external evaluation, improvement processes, and outcomes is collected, used and made publicly available

The SER describes in sufficient detail in what ways the feedback and opinion of students, employers and graduates is sought, with which (relatively broad) goals in mind, and in which institutional contexts the results are usually discussed and considered.

The LTVK analyses the data provided by the government (STRATA). Student surveys are carried out at the end of each semester. Reported results are overall very good. Only room for improvement on practical skills and independent assessment capabilities are stated.

Results are published regularly, including national rankings for the college performance.

How previous improvement recommendations from earlier evaluations have been addressed by the LTVK is reported.

#### 7.1.4. Student feedback is collected and analysed

The SER makes no mention of the National Student Survey app, but refers to STRATA data and states that student feedback is sought through internal opinion surveys twice a year (at the end of the semester).

In the site visit meetings with current LTVK students and recent graduates, the general opinion was that student feedback is appreciated and usually acted upon and that lecturers are very open to student feedback.

According to a verbal answer at one of the site visit meetings, the response rate for student surveys is about 50%.

#### **ANALYSIS AND CONCLUSION (regarding 7.1.)**

The level of detail of the description of internal quality assurance mechanisms and stakeholder involvement are adequate. The description of changes to the study programmes resulting from external audits is detailed. Improved formal processes integrating all feedback from the various stakeholders (students, graduates and employers) in addition to successfully gathering informal feedback would be recommended.

While the practical skills of graduates generally meet market demand (also according to employment statistics), a further improvement of these practical skills was indicated and transferable skills were considered somewhat lacking by employers.

Overall, while internal quality assurance is highly structured, feedback cycles and processes are less so and would benefit from a more dedicated and formal process structure.

## **AREA 7: CONCLUSIONS**

AREA 1	<b>Negative - 1</b> Does not meet the requirements	Satisfactory - 2 Meets the requirements, but there are substantial shortcomings to be eliminated	Good - 3 Meets the requirements, but there are shortcomings to be eliminated	Very good - 4 Very well nationally and internationally without any shortcomings	Exceptional - 5 Exceptionally well nationally and internationally without any shortcomings
First cycle			3		

#### COMMENDATIONS

- 1. There is a highly structured internal quality assurance system.
- 2. Feedback is regularly sought from different stakeholders.
- 3. The involvement of employers through the process leading to the "Investors' Spotlight" certificate appears to be a particularly strong point.

#### RECOMMENDATIONS

#### To address shortcomings

- 1. The results of the various feedback processes/opinion surveys should be given more attention, both in internal practices and in reporting. This would increase measurability and reliability and thus help strengthen claims made in the SER w.r.t. to continuous improvement of the study programme.
- 2. Employer feedback w.r.t. the lack of transferable skills of graduates (i.e. applying theoretical knowledge in practice, ability to solve problems independently, ...) needs to be taken into account and reflected in the study programme.

#### For further improvement

- 1. Some of the feedback processes would benefit from a higher degree of structure and formality, also with an eye towards more measurability in results and changes over time.
- 2. Student and graduate involvement in feedback processes could be incentivised more strongly since the indicated response rates are not very high.

## **IV. SUMMARY**

We would like to thank the HEI for organising a well-structured site visit.

The visit showed a significant discrepancy between a well-designed and well-run study programme in *Digital Design Technologies* that reflects best practices and the *Applied Informatics and Programming* programme, whose learning outcomes do not fully meet the descriptors of the groups of study field in computing and which is essentially run by part-time employees with only a loose commitment to the LTVK.

Also, the number of students attending courses in-person is a cause for concern as there is a significant risk that non-distance contact hours falls below the critical threshold of 10%. This risk should be monitored and addressed.

Overall, it is positive that feedback from stakeholders is sought systematically, that the building facilities are renovated and of high quality, and that teachers are committed. Access to the Simulation Company "Biurometa" is a strength of the study programmes.

In the context of the surrounding market, the LTVK should strengthen its links with a wider range of economic sectors in order to maintain the relevance and attractiveness of the programme.